

34 Lecture - PHY301

Important Mcqs

What is the primary function of a transformer?

- A. To convert DC to AC
- B. To amplify electrical signals
- C. To transfer electrical energy through electromagnetic induction
- D. To protect electrical devices from power surges

Answer: C

What is the turns ratio of a transformer?

- A. The ratio of power output to power input
- B. The ratio of the number of turns in the secondary winding to the number of turns in the primary winding
- C. The ratio of voltage to current
- D. The ratio of resistance to capacitance

Answer: B

What is the efficiency of a transformer?

- A. The ratio of the number of turns in the primary winding to the number of turns in the secondary winding
- B. The ratio of the power output to the power input
- C. The ratio of the voltage output to the voltage input
- D. The ratio of the current output to the current input

Answer: B

How are transformers used in power systems?

- A. To convert DC to AC
- B. To amplify electrical signals

C. To transfer electrical energy at high voltages and low currents

D. To regulate the flow of current through a circuit

Answer: C

What is the maximum power rating of a transformer?

A. The maximum amount of power that can be input into a transformer

B. The maximum amount of power that can be output from a transformer

C. The maximum amount of power that a transformer can handle before becoming damaged

D. The maximum amount of power that a transformer can transfer through electromagnetic induction

Answer: C

What is the frequency response of a transformer?

A. The ability of a transformer to transmit signals of different frequencies

B. The maximum frequency that a transformer can handle

C. The minimum frequency that a transformer can handle

D. The frequency at which a transformer resonates

Answer: A

What are step-up transformers used for?

A. To increase the voltage level of an electrical signal

B. To decrease the voltage level of an electrical signal

C. To amplify electrical signals

D. To regulate the flow of current through a circuit

Answer: A

What are isolation transformers used for?

A. To match the impedance of audio devices

B. To protect electrical devices from power surges

C. To transfer electrical energy between circuits

D. To provide electrical isolation between two circuits

Answer: D

What is the purpose of a transformer core?

A. To conduct electricity

B. To provide mechanical support to the transformer

C. To focus the magnetic field and increase the efficiency of the transformer

D. To regulate the flow of current through a circuit

Answer: C

What is a tap changer in a transformer?

A. A device used to change the frequency of the electrical signal

B. A device used to adjust the voltage level of the electrical signal

C. A device used to switch the transformer on and off

D. A device used to match the impedance of audio devices

Answer: B